

DOCUMENT RESUME

ED 099 488

CE 002 565

TITLE Technical Report on Manpower Planning. Technical Group Report No. 7.

INSTITUTION Montana Commission on Post-Secondary Education, Helena.

PUB DATE May 74

NOTE 23p.

EDRS PRICE MF-\$0.75 HC-\$1.50 PLUS POSTAGE

DESCRIPTORS *Job Market; *Manpower Needs; Post Secondary Education; Questionnaires; *State Surveys; Technical Reports

IDENTIFIERS Manpower Planning; Manpower Research; *Montana

ABSTRACT

The report is one of a series containing data and recommendations relevant to the task of developing future plans for Montana's post-secondary education. A brief introduction outlines the methods used in gathering information on manpower needs, and is followed by a review and summarization of the data collected, including a description, analysis, and interpretation. Recommendations are made regarding future collection of similar data, problems needing further study, an alternate recommendation, and policy recommendations based on the work of the committee. There are four appendixes: Questionnaire on Job Market Information, replies, Questionnaire on Composite List of Manpower Reports, and a brief outline of responses. (NH)

ED 037488

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MONTANA COMMISSION ON

TECHNICAL REPORT ON MANPOWER PLANNING

POST-SECONDARY EDUCATION

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TECHNICAL GROUP REPORT NO. 7

MANPOWER PLANNING

Prepared for

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May, 1974

This is one of a series of reports by technical consulting groups which are advisory to the Montana Commission on Post-Secondary Education. The data and recommendations presented in these reports reflect the work of the technical group and its members and not the views of the Commission itself.

The primary purpose of these reports is to provide the Commission with information relevant to its task of developing plans for the future of Montana post-secondary education. Each report will be reviewed by the members of the Commission and used in the Commission's deliberations.

The Commission is indebted to the many individuals from institutions of post-secondary education, state agencies and professional organizations who served on the technical consulting groups, and to the institutions and agencies which contributed the data and personal services which made it possible for the technical groups to carry out their charges.

TECHNICAL GROUP ON
MANPOWER PLANNING

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of Public Instruction

MANPOWER PLANNING

Charge

1. To gather all available information on current and future needs of Montana for trained manpower and to analyze the adequacy of such data for educational planning
2. To develop a projection or series of projections of manpower needs for the next decade and, if feasible, beyond that period of time
3. To determine whether manpower information is available to post-secondary institutions, students and counsellors
4. To make recommendations or alternative recommendations for collection of manpower information and dissemination to secondary and post-secondary education, and to students and prospective students.

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TECHNICAL GROUP ON MANPOWER PLANNING

INTRODUCTION

The initial meeting of the Manpower Technical Group was devoted to a discussion of the Charge in an attempt to gain an understanding of the task given the group by the Post-Secondary Commission, and to decide the method to be employed in arriving at the required conclusions.

A division of assignments was agreed upon, with each member being responsible for gathering information on manpower needs in certain areas. The resulting assortment of publications, reports, or studies, was compiled by the staff into a composite list, which was adopted by the group as fulfilling the requirements of Charge 1.

With neither adequate staff nor sufficient time for original research, the Manpower Planning Technical Group looked to existing sources which would satisfy the need of Charge 2, i.e., projections. Two publications were selected, which though admittedly incomplete, seemed the best available resource material on the subject. They are "Montana Manpower", and "The State Comprehensive Manpower Plan".

It should be noted here that these documents deal exclusively with Montana projections of job opportunities. Emphasized in this report is the consensus that regional and national data are also needed.

The deficiencies noted in the realm of manpower projections could not be remedied by the committee, but these very deficiencies served to underscore the committee recommendations for change.

Information regarding Charge 3 was sought through questionnaires to Post-Secondary Counsellors, and to student resource groups. These, plus the results of individual analysis of the composite list of manpower reports by the members, provided the background for the group answer to Charge 3.

Each member of the Technical Group supplied his own recommendations and alternate recommendations which served as the basis for group decision on those points to be included in the final report.

The members were responsive to the assignment, attentive to detail, and committed to turn out a product which would be a realistic, understandable, and helpful tool for use by the Post-Secondary Commission.

It is our hope that this has been accomplished.

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REVIEW AND SUMMARIZATION OF DATA COLLECTED

Assumptions

The Manpower Planning Technical Committee has been charged with determining the feasibility of using information on current and future manpower needs for educational planning purposes, to determine the adequacy of available information, as well as the means of dissemination thereof, and to make recommendations for improvement in order to correct any observed deficiencies.

There is a legitimate social interest which will serve Montana and the nation by assuring optimum use of public resources available for training and education. This interest may best be served by providing training and educational programs which would meet manpower needs without creating either an unemployable surplus or a deficiency of trained or educated personnel in any particular vocation or profession.

Properly planned education produces flexible and versatile people who are more capable of performing in various capacities within the constantly changing framework of manpower needs. These individuals are more able to affect career changes and transferability of skills.

Manpower needs can be predicted and these needs can be related and geared to education and training at all levels. "Effort and resources might be invested in the development of manpower projections within the region, the locality, and the firm. Many organizations and individuals are involved in projecting, and all are not equally expert. The work of the BLS is the soundest available; less sophisticated agencies, usually involved in projections of specialized type of manpower, would be aided by government-wide projection guidelines. More intensive research effort needs to go into understanding skill requirements and transferability. In the end, however, the main burden is on the projection user: accept the fact that even with the best of techniques, the future will remain opaque; use projections with patience and wisdom; and have faith in the far from perfect but reasonable flexibility of the labor market and the adaptability of human beings." (The State of the Art, "Human Resources and Labor Market" by S. A. Levantine, G. L. Mangat and R. Marshall)

The need exists for more reliable, up-to-date and comprehensive information on present and future career and job opportunities for trained and educated individuals in each of the various vocations and professions.

Long term projections of manpower needs should be available so appropriate responses on the part of educational and career oriented planners can be both timely and effective.

Manpower planning, to be successful, must be continuous.

Description/Analysis/Interpretation

While Montana appears to have reasonable statistical data indicating the trends in various occupations, the available manpower data collected by the committee is regarded as inadequate because: (a) the data was generated by many different agencies and sources for diverse purposes in response to inquiries, many of which are unrelated to educational planning; (b) the data is not sufficiently comprehensive to be responsive to educational planning needs and educational planning should be accomplished with reference to specific data gathered in response to specific inquiries; (c) analysis and interpretation of existing data for planning purposes is difficult and frequently accomplished by those having varying degrees of skill.

While available manpower data is more adequate for planning with respect to employment or career oriented programs than other educational programs, it is still unsatisfactory because: (a) the evaluation of the data, as well as keeping it current, remains a problem; (b) there is inadequate definition or recognition of job content, skill requirements, or transferability of skills; (c) manpower information presently available has generally been generated by the "industrial" method, and such information does not appear to be sufficiently comprehensive for educational planning purposes.

RECOMMENDATIONS

Future Collection of Similar Data; Problems Needing Further Study

A single state agency should be appropriately funded and staffed and charged with the responsibility for generating, keeping current, and disseminating manpower data requisite for educational and career planning.

Discharge of that responsibility would include: (a) inventory of all job titles, vocations, professions, with job descriptions for each which are adequate to determine training or educational requirements for each; (b) inventory of all available data sources which would not only provide information as to numbers of individuals currently and prospectively available locally, regionally and nationally in each job vocation or profession, but would likewise provide information on numbers of current and prospective employment opportunities in the same categories; (c) inventory of all private and public training and educational programs within the state and identification of all employment categories for which graduates thereof may qualify; (d) annual projections of numbers of employment opportunities which are or will be available in each employment category for at least ten years into the future; (e) projections of the number of individuals who are or will be qualified within each of these employment categories for the same period of time; (f) a means of dissemination of manpower information to appropriate staff within public and private institutions, prospective students, students, and the general public, in a timely manner; (g) a system of reporting to the appropriate public officials those manpower surpluses and deficiencies which have been projected, to indicate what training or educational programs within the state will affect or be affected by such surplus or deficiency.

Alternate Recommendation

Fund basic research into manpower needs forecasting and methods of translating forecasts into useful data for planning and counselling purposes. (a) Implementation of a ten year

manpower model in sufficient detail to identify major vocational education categories and "recruitment pool" in education. (b) The model would allow for interoccupational, inter-industry, and geographical migration during or after training. The model should be flexible enough to accommodate unexpected circumstances such as the energy crisis, recession, etc.

Policy Recommendations Based on Work of the Committee

Upon review of available information, responses to specific inquiries, and extensive discussion, there was general agreement among members of the committee on the following:

Avoidance of a surplus or deficiency of qualified individuals in specific career fields may best be done by providing current and reliable career information to students throughout the period of training or education. It is assumed that informed individual choices will reflect enlightened self-interest and lead students into areas in which they know there will be a need for their services. Montanans, as other Americans, are entitled to "free choice" as to how they will earn a living. While we do not want to suggest a "managed" labor market where individuals are told what fields they must prepare for, we assume that some encouragement to prospective trainees to enter shortage occupations is legitimate. By the same token, discouragement about preparing for overcrowded occupations is justified. Allocation of training and educational resources, done in a climate of open discussion, with opportunity for input from the public, educators, employers, labor organizations, and the prospective trainees themselves, would accomplish this without violating the "free choice" principle.

Neither the manpower information presently available, nor the existing means of dissemination to the student is adequate. Career counselling is, for most students in Montana, either non-existent or inadequate and there is little or no continuity or coordination between secondary and post-secondary counselling in this area. While there are some educational and psychological or clinical counsellors available to students throughout the state, there are virtually no professional career counsellors and only a very few formal educational courses for the training of career counsellors are available. Thus, the most important decision made by the student, that of selecting a career, is most often made on the basis of inadequate or even erroneous information.

With the suspension of the draft and the conversion to an all volunteer force, it is essential that projections of job and training opportunities make meaningful distinction between military and other government service occupations. Lumping all military occupations together and then breaking out civilian jobs (professional, managerial, clerical, sales, craftsmen, service workers, laborers, etc.) reflects a superficial and inappropriate approach to planning.

QUESTIONNAIRE ON JCB MARKET INFORMATION

1. Do your responsibilities include counselling students in terms of career choices? Yes _____ No _____
2. Do you believe you have adequate information pertaining to present and future job markets in Montana in order to counsel students about career choices?
Yes _____ No _____
3. Do you believe you have adequate information pertaining to present and future job markets nationally in order to counsel students about career choices?
Yes _____ No _____
4. Do you receive job market information from state agencies on a regular basis? Yes _____ No _____
5. Do you believe you have sufficient time and other resources to make job market information meaningful to students?
Yes _____ No _____
6. Indicate below any suggestions you might have concerning job market information which would improve student counselling.

Name of Counsellor: _____

Name of Institution: _____



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January 11, 1974

To: Technical Group on Manpower Planning

From: George L. Bousliman

Subject: Questionnaire to Counselors

Attached is a copy of the questionnaire sent to post-secondary counselors. It was sent to 66 counselors on December 21. A January 10 return date was requested.

As of this date, 45 of the 66 counselors replied. The results are set out below:

Question #1: Do your responsibilities include counselling students in terms of career choices? Yes 38
No 7

Note the responses of those who indicated "no" above are not included in the tabulations below.

Question #2: Do you believe you have adequate information pertaining to present and future job markets in Montana in order to counsel students about career choices? Yes 8 No 30

Question #3: Do you believe you have adequate information pertaining to present and future job markets nationally in order to counsel students about career choices? Yes 11 No 27

Question #4: Do you receive job market information from state agencies on a regular basis? Yes 7 No 29

Question #5: Do you believe you have sufficient time and other resources to make job market information meaningful to students? Yes 9 No 27

Below is a summary of responses to item 6 of the questionnaire, i.e., suggestions concerning job market information which would improve student counseling.

- A "career outlook" report should be published regularly, indicating current job opportunities. "It is difficult to keep track of the many various bits and pieces of information which may be available."
- There should be better cooperation between the Employment Service, other state agencies, and post-secondary units in disseminating job information.
- The state should have a computer data bank and hot line to make immediate job information available.
- More information should be available to aid liberal arts majors in finding employment.
- Information is needed on very current trends, as well as projections for the future.
- The Office of Superintendent of Public Instruction should have an employment surveying position to assist the Vo-Tech Centers in program planning and student placement.

QUESTIONNAIRE ON COMPOSITE LIST OF MANPOWER REPORTS

1. In your opinion, how does the Technical Group composite list of manpower reports rate in terms of adequacy for general educational planning?
2. How does this same list rate in terms of adequacy for more employment-oriented or career-oriented educational planning?
3. If, in theory, we could collect all the necessary information for adequate manpower planning at the state policy making level:
 - (A) Whose responsibility should this be?
 - (B) Should this include national job market information as well as that for the state?
 - (C) Should long range projections be made from this information? If so, how far into the future?
4. From your own experience or knowledge, to what extent do our own state schools provide occupational guidance or career counselling courses for those going into the profession of counselling in our public schools?
5. Please prepare your own list of recommendations or alternate recommendations in response to Item 4 of the charge of the Technical Group on Manpower Planning.

RESULTS OF QUESTIONNAIRE FOR THE
TECHNICAL GROUP ON MANPOWER PLANNING

1. In your opinion, how does the Technical Group composite list of manpower reports rate in terms of adequacy for general educational planning?

In response to this question, 2 replied that the composite list rates good; 1 rated the list fair; and 4 rated the list inadequate.

Some of the remarks in response to the question, Why do you rate it so? are as follows:

- (1) Difficult to analyze information for useability by planners.
 - (2) General educational planning should be based upon specific data gathered in response to specific inquiries -- the information available does not meet this requirement.
 - (3) The composite list is only one factor which can be used for educational planning.
 - (4) There is not enough information for out-of-state opportunities.
 - (5) The present information is patterned on "industrial" methods and is unsatisfactory for most educational purposes.
 - (6) Neither quantitative nor the qualitative amount of education necessary to educate the "total" man has been sufficiently defined in Montana or elsewhere.
2. How does this same list rate in terms of adequacy for more employment-oriented or career-oriented educational planning?

2 people responded that the list rated good; 1 rated it fair; 1 rated it fair to poor; and 3 rated it inadequate.

Some of the comments as follows:

- (1) Overall the list is quite adequate but difficult to evaluate and keep current.

2. continued.

- (2) Because of the difficulty in projecting career opportunity with accuracy, students should be trained in more than one area.
- (3) There is no clear approach on how to plan educational programs based on manpower projections.
- (4) There is a general lack of knowledge concerning job content, skill requirements, and transferability of skills.

3. If, in theory, we could collect all the necessary information for adequate manpower planning at the state policy making level:

(A) Whose responsibility should this be?

1. One answer was that a State Economic Council should be formed under the administrative control of the Department of Planning and Economic Development, drawing on data from the Department of Labor, the Department of Agriculture, Data Processing, the Department of Administration, and the University System (faculty).
 2. The second suggestion voiced by 3 of the respondents stated that the Employment Security Division should be responsible for collecting this information.
 3. The third suggestion was a Central Agency similar to (A)1. above.
 4. A similar structure was outlined with the comment that adequate funding must be provided.
 5. The responsibility should be a state agency other than the educational unit.
- (B) Should this include national job market information as well as that for the state?

Every answer was yes to this question, with comments such as: absolutely, essential, and so forth.

(C) Should long range projections be made from this information? If so, how far into the future?

Everyone agreed that long range projections should be made except one. The

periods of these projections range from 5 to 15 years, as answered by 3 replies. One comment was that projection should be made on a 4 year period at the very minimum to coincide with four year college or university courses. One answer was the projection should be on a 2 year and a 5 year and then long range basis. Several commented that whatever projections are made they should be constantly updated.

4. From your own experience or knowledge, to what extent do our own state schools provide occupational guidance or career counseling courses for those going into the profession of counseling in our public schools?

The answers to this question were generally of the opinion that there is either little or not enough occupational guidance or career counseling courses offered in the state of Montana. Specific answers are as follows:

- (1) Two courses at Eastern.
- (2) Counselors recognize the need, but lack the training.
- (3) Student needs are not being met.
- (4) Some improvement noted.
- (5) Guidance counselors are oriented too much to college careers.
- (6) Very little.
- (7) One course at the University of Montana.
- (8) There should be more courses available. Also, counselors should have a background of work experience in addition to teaching or counseling experience.

5. TO BE BROUGHT TO THE TECHNICAL GROUP ON MANPOWER PLANNING MEETING.

Please prepare your own list of recommendations or alternate recommendations in response to Item 4 of the charge of the Technical Group on Manpower Planning. You need not mail this in with the questionnaire. We will use your lists as the basis for group discussion and development of our recommendations.